

R&D&I Tax Incentives in the European Union and State Aid Rules

Although tax incentives are an effective tool for promoting R&D&I, depending on their design they may qualify as State aid (article 107(1) of the TFEU) unless exempted by the Commission (article 107(3)). This article discusses the role of State aid rules in respect of R&D&I incentives and the need to ensure R&D&I promotion policies in Europe are on equal footing with the rest of the world, thus ensuring a level playing field for European undertakings in global markets.

1. R&D&I Investment Promotion in the European Union

Article 179(1) of the Treaty on the Functioning of the European Union (TFEU) (2007)¹ hails R&D&I² promotion as a common interest objective in the European Union:

The Union shall have the objective of strengthening its scientific and technological bases by achieving a European research area in which researchers, scientific knowledge and technology circulate freely, and encouraging it to become more competitive, including in its industry, while promoting all the research activities deemed necessary by virtue of other Chapters of the Treaties.

The Europe 2020 strategy,³ however, puts R&D&I at its heart by setting a target of overall R&D&I spending of 3% of gross domestic product (GDP). The Commission Communication EU 2020 outlines a clear need to improve the conditions for private R&D&I in the European Union. R&D&I spending in Europe is currently below 2%, compared to 2.6% in the United States and 3.4% in Japan, mainly as a result of lower levels of private investment.⁴ Finally, the European Commission's project Horizon 2020⁵ (the financial instrument of EU 2020) labels R&D&I promotion as one of the main outstanding elements of its growth and development strategy.

National R&D&I policies, which are being developed in parallel to Horizon 2020, are called on to also take a decisive role in promoting R&D&I. Research and innovation generally thrive best in open and competitive markets. Market failures may, however, hamper the delivery of optimal levels of research and innovation. State aid, among other policy tools, can tackle market failures and create incentives for market participants, thus facilitating research and innovation.

Despite the positive role played by national R&D&I policies, some measures included in these national policies may be labelled as State aid, as they may affect free competition and can even reduce a competitor's incentive to invest. State aid also distorts competition and strong competition is, at the same time, a crucial factor for market-driven stimulation of investment in R&D&I. Therefore, State aid measures must be carefully designed in order to limit distortions. Otherwise, State aid can become counterproductive and reduce the overall level of R&D&I and economic growth.

The Commission considers that an increase in the level of R&D&I activity in the Community is in the Community's common interest, as it is expected to significantly contribute to growth, prosperity and sustainable development. In this context, the Commission recognizes that State aid has a positive role to play when it is well targeted and creates the right incentive for undertakings to increase R&D&I. Nevertheless, State aid may also lead to significant distortions of competition, which must be taken into consideration.

This article examines the idea of supporting R&D&I measures to attract investment (section 2.), State aid rules (section 3.), the interplay of R&D&I promotion and State aid policy (section 4.), R&D&I tax incentives as State aid (section 5.), provides conclusions (section 6.) and ends with a series of recommendations (section 7.).

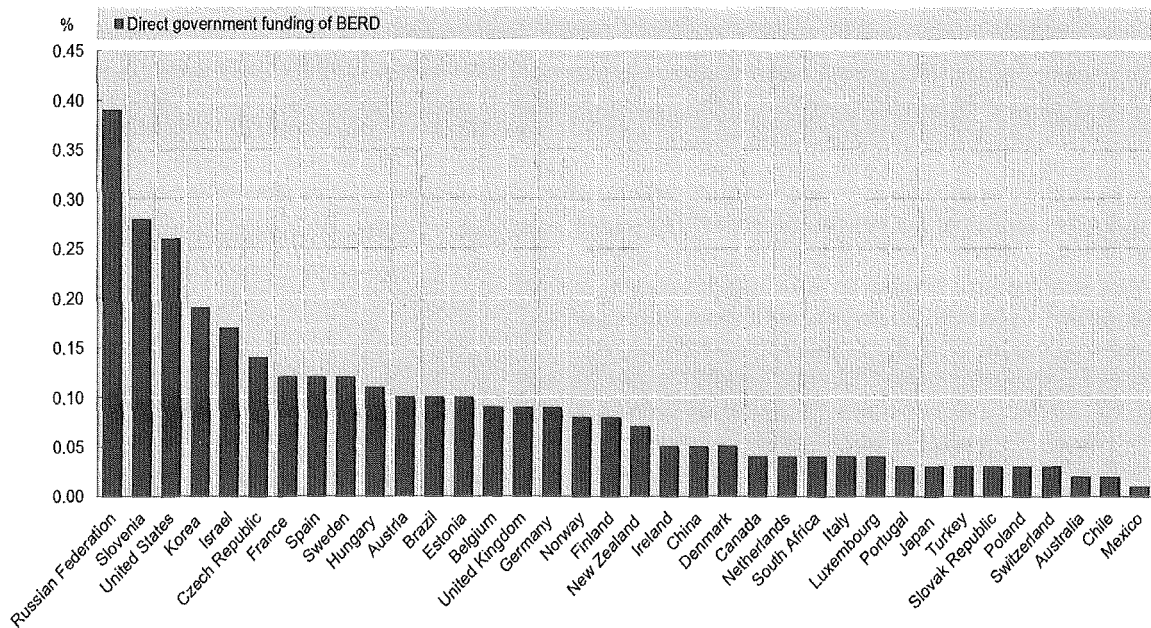
2. Supporting R&D&I Measures and Attracting Investment

Investment in R&D&I is undertaken by firms based on the expectation that such investment will bring future benefits, such as lower production costs or higher revenues. Unfortunately, private investment in R&D&I may be below the optimal level, especially when the return on investment is very uncertain. In these situations, government intervention can enhance welfare. The main justification for state intervention in the promotion of R&D&I activities is that, under pure market conditions, such activities are underinvested in because of a high level of risk of such investments and large spillover effects to society.

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1. Treaty on the Functioning of the European Union of 13 December 2007, OJ C115 (2008), EU Law IBFD.
2. Innovation was not initially taken into consideration by European players and, therefore, it was not mentioned in the EU papers or policies. However, since innovation has become an EU policy priority in the context of "Innovation Union", one of the Europe 2020 flagship initiatives and, moreover, many aid measures for innovation are relatively minor and create no significant distortions of competition, innovation has been included in EU policies, including State aid policy and rules. For this reason, the author has decided to include innovation in all references to R&D made in this paper. Thus, the term R&D&I is used in this paper.
3. Communication from the Commission of 3 March 2010 – Europe 2020. A strategy for smart, sustainable and inclusive growth, COM (2010) 2020 final.
4. Commission Staff Working Paper, Mid-Term Review of the R&D&I Framework, p. 1 (10 Aug. 2011).
5. *Supra* n. 3.

Diagram 1: Direct government funding of BERD



Source: OECD Science Technology and Industry Scoreboard, 23 October 2013, available at www.oecd.org/sti/rd-tax-stats.htm.

Therefore, in order to correct for the lack of provision of R&D&I activities, governments intervene.

While increasing the volume of R&D&I activities is the primary policy objective, governments also often anticipate an impact on the competitiveness of their industry and regard R&D&I incentives as a tool to improve the international attractiveness of their country as a location for innovation. Governments can choose among various instruments to promote business R&D&I. In addition to giving grants or loans and procuring R&D&I, many governments also provide tax incentives.

Tax incentives and direct funding are the two main instruments currently used in many countries to stimulate private R&D&I activity. Both belong to a broader package of measures intended to enhance private research and innovation activities, which includes intellectual property (IP) rights, public funding of basic research and public provision of venture capital. Notwithstanding the wide range of policy instruments used to stimulate private R&D&I, the most widely used are direct subsidies and tax incentives. Moreover, since labour represents half of the R&D&I expenditure, some countries use labour incentives in order to ease the burden on R&D&I labour.

Tax incentives are an indirect means of supporting R&D&I, in contrast to direct government funding of business R&D&I through grants or contracts. The volume of government funding through R&D&I tax incentives is significant and can reach a similar magnitude as direct R&D&I funding. In several countries, such as Australia, Austria, Belgium, Canada, Denmark, France, Ireland, Japan, Korea and the Netherlands, indirect support through tax incentives exceeds direct funding.

While direct public funding of private R&D&I is a long-standing tradition in many countries, tax incentives have spread gradually, although subject to some exceptions. Canada, Japan and the Netherlands mostly rely on tax incentives, while direct funding is still preferred by Germany, Finland and Sweden. Other countries combine both instruments, for example, Australia, Canada, Denmark, France, Portugal, Spain and the United States.⁶

National R&D&I spending is influenced by a broad range of factors. The decision to support private R&D&I through direct financing and/or tax incentives is made by governments within the context of their political and economic systems.

An interesting study⁷ determined that R&D&I tax incentives and direct funding to promote R&D&I are substitutes rather than complements, that is, increased use of one reduces the effect of the other on business R&D&I. This is so despite evidence that they stimulate different R&D&I projects (short-term/ long-term projects, respectively). Thus, an integrated long-term policy framework that would provide more consistency in the application of various types of incentives and that would coordinate the various institutions involved in their design and implementation would be desirable. For an overview of the level of direct R&D funding amongst countries see Diagram 1.

6. J. Nill, *Design and use of fiscal incentives to promote business RDI in CREST countries: an overview*, European Commission Joint Research Centre-Institute for Prospective Technological Studies (IPTS), Final version, 15 Sept. 2005 (slightly updated 5 Oct. 2005 and 1 Mar. 2006), p. 3.
7. J. Warda, *Measuring the Value of R&D&I Tax Provisions (A Primer on the B-index Model of Analysis and Comparisons)* (28 June 2005).

The level of direct R&D funding (BERD)⁸ varies significantly amongst countries

The focus of this paper now turns to R&D&I tax incentives, most of which are aimed at reducing corporate tax liability. In this respect, two main types can be distinguished: tax allowances and R&D&I expenditure tax credits.⁹

In general, the preference for one or the other depends on the effective marginal tax rate of the entity. For large entities, both R&D&I tax credits and allowances can lower their overall tax liability. Smaller entities – which may not have significant tax liabilities – may benefit more from tax allowances, which lower their taxable income. However, some countries, for example, Canada, remedy this by making R&D&I tax credits refundable and thus of use to smaller firms without taxable income.¹⁰

As a traditional R&D&I tool, “tax credits” provide for the possibility to deduct a sum of the total amount a taxpayer owes to the state. In addition to studying the efficacy of such an instrument, whether or not a tax credit or tax allowance – a type of super deduction – may be more profitable for enterprises should be analysed. In general, the preference for this incentive will depend on the effective marginal tax rate of the entity.

R&D&I “tax allowances” are a type of super deduction that is not directly offset against R&D&I expenditures. Thus, some entities argue that R&D&I tax credits have a greater effect on R&D&I decision making than allowances since the credit is directly included in the R&D&I budget of a firm. Credits are, therefore, more visible to those responsible for research spending within a company and more likely to encourage additional R&D&I investment.¹¹

The OECD argues that tax allowances are more appropriate for small and medium-sized enterprises (SMEs) because they lower taxable income, while tax credits work only if there is a relevant tax liability, which is assumed to be lower for small entities due to the fact that their economic situation is worse off. If both forms of incentives are calculated such that the net relief is the same, however, i.e. by taking the corporate income tax rate into account, then there should be no difference. The problem of profits being too low to benefit from a scheme can arise under both forms of incentives.¹²

It is a common economic concern with regard to research and innovation that important new knowledge and R&D&I advances are often generated by “outsiders” and new firms, while well established actors are more likely to be bound by well established paths of knowledge accu-

mulation. Standard tax incentives do not provide effective support when these companies do not (yet) have profits. Certain design features of tax incentives might cope with some of their limitations and are increasingly used by a range of countries. Carry forward of unused incentives up to 10 years is indeed possible for the majority of measures in use. The availability of this option is often linked to the characteristics of the general tax system.

Direct cash refunds of unused tax incentives are in use in four countries, namely, Austria, France, Norway and the United Kingdom. France and the United Kingdom limit the use of such measures to young companies and companies facing hardship or to SMEs, respectively. Recent experience in Norway and the United Kingdom shows that the take-up of this option is quite widespread and can make up a significant part of the expenses of a scheme. The tradability of tax credits, which is possible, for example, in the United States does not seem to constitute a relevant design option with regard to European tax incentive schemes. Finally, two measures in Belgium and the Netherlands are noteworthy, which avoid the problem of innovative loss-making firms benefitting from incentives.¹³

Another type of tax incentive worth mentioning is “tax deferrals”, which offer a delay in the payment of taxes, typically in form of an allowance for accelerated depreciation. In principle, certain forms of tax deferral exist in the tax treatment of R&D&I in nearly every country. Most of them allow for a full deduction of current R&D&I expenses, which can be regarded conceptually as accelerated depreciation, because some of the expenses are assumed to generate future income.

Tax incentives aimed at increasing the patenting activity of companies can also be found. In recent years, some governments have expanded tax incentives to income from IP generated by R&D&I, which is referred to as a “patent box” regime. The importance and presence of patent box regimes are growing within the tax systems of EU Member States.^{14,15} This form of tax incentive stems from the Interest and Royalties Directive (2003/49),¹⁶ which reduces or eliminates some of the withholding tax on certain royalties.

8. Government-funded business R&D is the component of BERD that companies attribute to direct government (central, regional or local) funding when describing the sources of funding for intramural R&D expenditures. It includes grants, some types of loans and procurement, but not R&D tax incentives or equity investments as in the case of public corporations.

9. For an overview of the main features of R&D tax incentive provisions in selected OECD and non-OECD countries in 2013 see <http://www.oecd.org/sti/rd-tax-incentives-provisions.pdf>.

10. OECD, *Tax Incentives for Research and Development: Trends and Issues*, p. 28 (OECD 2002).

11. Id., p. 28.

12. Id.

13. Nill, *supra* n. 6, at pp. 10-11.

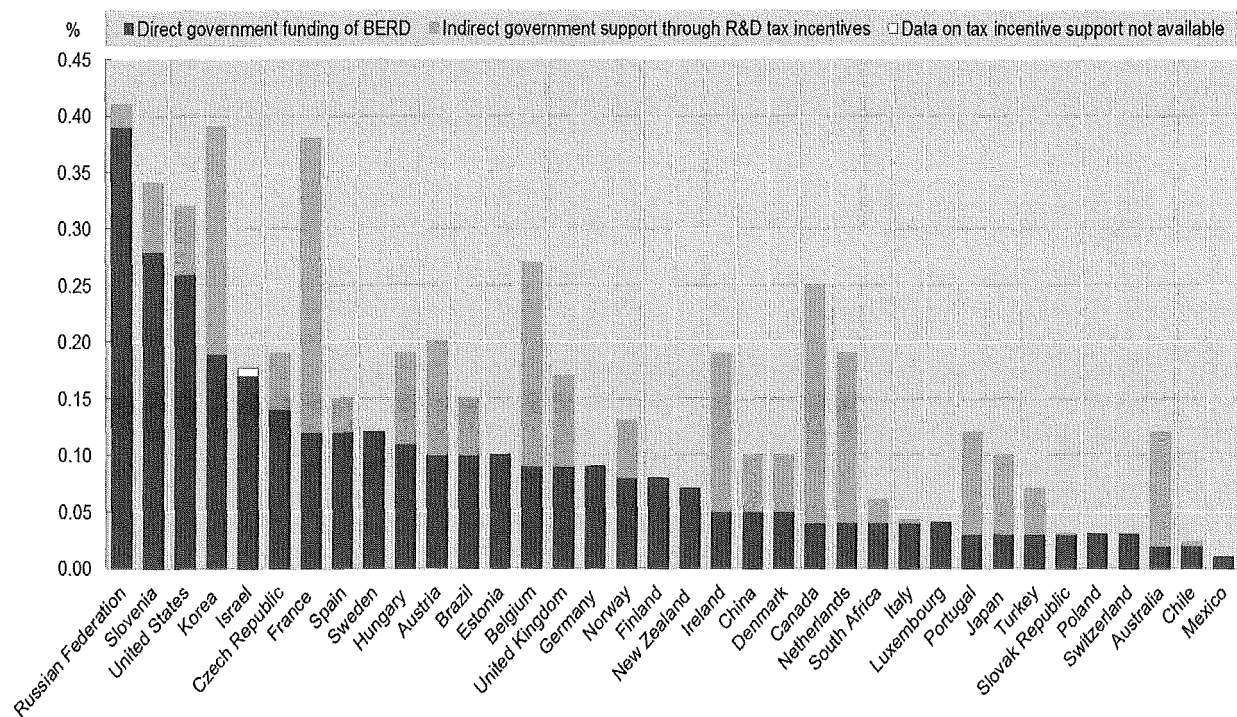
14. For instance, “Innovation Box tax system” in the Netherlands, “LITL” in Luxembourg, “Patent Income Deduction” in Belgium, “Patent Box tax system” in Spain, “Intangible Asset Depreciation Regime” in Ireland.

15. The patent box regime was introduced in Spain by ES: Law 16/2007 of 4 July. The Ninth Additional Provision to this law states that the patent box regime should enter into force, with retroactive effect from 1 January 2008, once the EU Commission affirms that it is compatible with EU State aid rules. On 13 February 2008, the European Commission authorized the Spanish patent box regime under the State aid rules. As a result of this authorization, this patent box regime is applicable with retroactive effect from 1 January 2008.

Currently the Spanish patent box regime is regulated by article 23 of ES: Corporate Income Tax Act, National Legislation IBD. The amendment to article 23 (contained in paragraph 2 of article 26 of Law 14/2013) applies to operations carried out effective 29 September 2013.

16. EU Interest and Royalties Directive (2003): Council Directive 2003/49/EC of 3 June 2003 on a Common System of Taxation Applicable to Interest and Royalty Payments Made Between Companies of Different Member States, OJ L157 (2003), EU Law IBD.

Diagram 2: R&D direct and indirect support



Source: OECD Science Technology and Industry Scoreboard, 23 October 2013, available at www.oecd.org/sti/rd-tax-stats.htm.

Since the main objective is to enhance technological innovation in the private sector, the aim of the patent box regime is to provide an additional incentive for companies to retain and commercialize existing patents and to develop new innovative patented products. In order to create a more attractive R&D&I environment, income from patents and certain other R&D&I intangibles that originate from R&D&I can benefit from a lower effective tax rate under the patent box regime.

Countries offering R&D&I tax incentives are often regarded as a favourable location for internationally mobile R&D&I. When efficiently allocated, companies can effectively leverage their global R&D&I infrastructure resulting in the development of valuable IP. The tax incentives for R&D&I within an overall corporate tax system can also play a role in locational decisions of multinationals. Countries are increasingly concerned about the “hollowing-out” of their research base. But such tax incentives have effects not only in relation to locational decisions; such measures can also determine the allocation of R&D&I investment across sectors, firms and projects.

Offering fiscal incentives to stimulate R&D&I has emerged as an increasingly popular policy tool over the past decade. In the last 10 years, R&D&I tax incentives have proliferated and become more generous. In 2011, 26 OECD member countries provided tax incentives to support business R&D&I, up from 18 in 2004 and 12 in 1995. R&D&I tax incentives are also offered by non-OECD member countries, including Brazil, China, India, Russia, Singapore and South Africa. Moreover, by 2011, over a third of all public support for business R&D&I in OECD member coun-

tries was in the form of tax incentives, a share that jumps to more than half when the United States – with its large direct procurement of defence R&D&I – is excluded.¹⁷

Some countries rely strongly on R&D tax incentive support, as seen in Diagram 2.

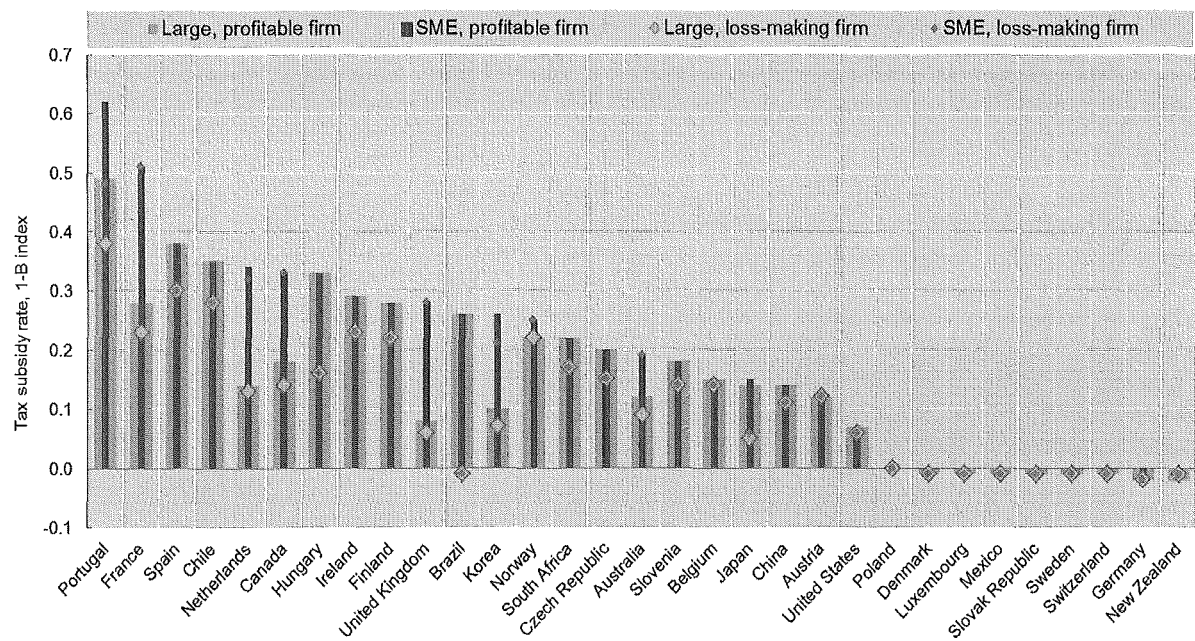
R&D&I tax incentives cover all kinds of companies due to the fact that they reduce expenses equally regardless of the project the company has been implementing, its size, the origin of its capital, as well as the sector of activity it takes part in. In addition, R&D&I tax incentives enable the companies to decide “where” and “how” to spend on R&D&I, as such companies are more capable of evaluating which projects will be more successful in the market.

Moreover, R&D&I tax incentives offer a wide range of design features to policymakers that allow for their flexible use for different policy objectives. They can be targeted to specific types of R&D&I activities (including innovation activities other than scientific research), they can vary by firm size, region or sector and they can be applied differently than the various types of R&D&I expenditures.

R&D&I tax incentives that are available to all sizes of firms can encourage increased investment in all types of companies, sectors and research (basic, applied, developmental). However, under general schemes, most R&D&I tax benefits tend to be claimed by larger enterprises that conduct the lion’s share of research. Tax measures aimed

17. OECD, *Maximizing the benefits of R&D&I tax incentives for innovation*, Annex 1 “Main Features of R&D&I tax incentives provisions in selected OECD and non OECD countries, 2013” (11 Oct. 2013).

Diagram 3: Profitable and loss-making firms and R&D tax incentives



Source: OECD Science Technology and Industry Scoreboard, 23 October 2013, available at www.oecd.org/sti/rd-tax-stats.htm.

at small firms are unlikely to have a significant impact on aggregate investment spending, but may encourage innovative expenditures at the margin. Provisions for carrying forward such credits also assist smaller enterprises, since, in the early years, they may not be sufficiently profitable to take advantage of the tax incentive. In addition to small firms, research contracted to or conducted with public research institutions and universities is an increasingly popular target for R&D&I tax schemes.¹⁸

Moreover, when profits are too low, R&D&I tax incentives may have no effect. For this reason, other measures, such as refunds and carry-overs, are sometimes offered. For an overview of the impact of R&D tax incentives on enterprises depending on whether or not they are profitable or loss making see Diagram 3.

3. State Aid Rules

3.1. Introduction

The European Commission has set out a complex of State aid rules, which is comprised of the articles of the TFEU, specific regulations, frameworks and guidelines, all of which lay down when aid can be given. Within the European Union, the European Commission is responsible for setting up the rules for controlling Member State compliance with the State aid rules and for approving aid.

The objective of State aid rules is to ensure that government interventions do not distort competition and trade within the European Union, i.e. they seek to balance the need to encourage activities that are anti-competitive with

the need to support activities that contribute towards a well functioning and equitable economy.

The starting point of EU State aid rules is article 107 of the TFEU, which assesses when a specific state measure constitutes State aid. It makes it clear that only state measures that constitute State aid are subject to State aid control. Further, this article assesses when such State aid measures can be compatible and, thus, allowed under the provisions of the TFEU.

Article 107 of the TFEU provides for a general prohibition of State aid, but measures can be declared compatible if the conditions for granting one of the exemptions of article 107(2) or 107(3) are fulfilled. The exemptions of article 107(2) are automatic exemptions, whereas article 107(3) gives discretion to the Commission in assessing compatibility.

As stated in section 2., the Commission has developed specific approaches that depend on the size of the firm, its location, the industry concerned, the purpose of the aid, etc. In order to ensure transparency, predictability and legal certainty, the Commission has made public the criteria it uses when deciding whether aid measures notified to it qualify for exemption. These publications take the form of regulations, communications, notices, frameworks, guidelines and letters to Member States.

The various soft law provisions have, however, typically been applied in a rather strict, formalistic way, so there is little scope for approving State aid measures that do not meet the conditions set out in the provisions.

18. Tax incentives for Research and Development: trends and issues, *supra* n. 10, at pp. 28-29.

3.2. Definition of State aid according to Community rules

State aid rules apply only to measures that satisfy certain criteria set out in article 107(1) of the TFEU. All criteria must be fulfilled. If a single criterion is not fulfilled, the measure granted is not subject to the State aid rules. These criteria are set out in sections 3.2.1. to 3.2.4.

3.2.1. The aid must consist of a transfer of public resources to an organization involved in an economic activity (undertakings)

In this context, public resources include resources granted by regional or local authorities, as well as other public or private sector bodies designated or controlled by the state. Furthermore, the aid does not necessarily need to be granted by the state itself.

It is understood that the term public resources, apart from the resources of the State budget or the budgets of local public bodies, also covers all other atypical financial resources that make it possible for the state to implement its basic tasks.

Financial transfers that constitute State aid may take many forms such as capital injections, loan guarantees, tax exemptions, etc.

State aid is costly. It involves the use of State funds that could have been used in other domains of government (opportunity costs of State aid), as well as the cost of raising the funds required (shadow costs of taxation). Even assuming that the State aid is employed in the right kind of situation and in the right manner, it may still not be worth it, especially if its impact is smaller than anticipated (presumably because the market failure is minimal) or the costs are high.¹⁹

The European Court of Justice (ECJ) has, however, interpreted the term “undertaking” in this area in a wide sense as any entity that exercises an activity of an economic nature and that offers goods and services on the market, regardless of the legal form and the method of financing of the entity. Even non-profit entities are included when they compete with companies that are profit oriented.

3.2.2. The measure must confer an advantage on an undertaking

The aid granted must constitute an economic advantage that the undertaking would not have received in the normal course of business. This benefit must be granted for free or on favourable (non-commercial) terms.

The benefit can be generated in a passive (refraining from collecting public receivables) or an active manner (active disbursement of public resources).

3.2.3. The measure granted must be selective

A measure is selective if it favours only certain undertakings, that is, if it targets particular businesses, locations, types of firm, etc. A “selective measure” is the opposite of a “general measure”, which applies without distinction across the board to all firms in all economic sectors in a Member State.

3.2.4. The aid must distort or have the potential to distort competition

If a measure strengthens the position of the beneficiary relative to other competitors, then this criterion is likely to be met.

This criterion is automatically fulfilled if the aid has a potential effect on competition and trade between Member States. The potential to distort competition does not have to be substantial or significant and this criterion applies to small amounts of aid and firms with little market share.

In order to fulfill this requirement, it is sufficient if it can be shown that the beneficiary is involved in an economic activity and that it operates in a market in which there is trade between Member States.

3.3. Notification procedure under article 108(3) of the TFEU

Article 108(3) of the TFEU governs the notification procedure, pursuant to which Member States must notify a scheme involving State aid and the Commission then makes a decision regarding its compatibility with the EU market. State aid granted without European Commission approval is viewed as unlawful and has to be recovered. According to article 109 of the TFEU, the Council may, however, determine categories of aid that are exempt from the notification procedure set out in article 108(3) of the TFEU. Consequently, in 2008, the European Commission adopted what is referred to as the General Block Exemption Regulation (GBER), which was provided for in Council Regulation (EC) No. 994/98.²⁰ Its enactment crowns a decade-long development of block exemption regulations. It expired on 31 December 2013 and will, therefore, need to be reviewed.

The GBER empowers the Commission to declare, by means of regulations, that certain specified categories of aid are compatible with the internal market and are exempt from the notification requirement of article 108(3) of the TFEU.

The GBER applies to all sectors of the economy with some exceptions²¹ and to “transparent” forms of aid: i.e. grants and interest rate subsidies, loans where the gross grant

19. H.W. Friederiszick, L.I. Röller & V. Verouden, *European State Aid Control: an economic framework*, in *Handbook of Antitrust Economics* p. 637 (Paolo Buccirossi ed., MIT Press 2007).

20. Commission Regulation (EC) No. 800/2008, of 6 August 2008, declaring certain categories of aid compatible with the common market in application of Articles 87 and 88 of the Treaty (General block exemption Regulation), OJ L 214, pp. 3-47 (9 Aug. 2008).

21. Sectoral restrictions are set out in article 1, paragraphs 3-6, of the GBER and include specific activities in the fishery & aquaculture sectors, in the primary production of agricultural products, the coal sector, the steel sector, shipbuilding and the synthetic fibres sector. These provisions simplify the procedures for aid granting authorities and allow for a range

equivalent has been calculated on the basis of the reference rate prevailing at the time of the grant, guarantee schemes, fiscal measures (subject to a cap) and some types of repayable advances. The GBER is aimed at a wide range of aid measures that are considered less problematic in competition terms, i.e. less distortive. The GBER enables notified aid to be granted without the need for approval in individual cases where a measure meets the terms of the regulation. Twenty-six areas are covered by it, these include:

- regional aid;
- SME aid;
- aid to disadvantaged and disabled workers;
- aid for environmental protection;
- risk capital aid;
- training and employment aid; and
- aid for research, development and innovation.²²

Article 6 of the GBER lays down the maximum amount of aid that is block exempted.²³ Adopting the GBER Regulation enabled the Commission to set out, in a Regulation, a threshold below which aid measures are exempted from the notification obligation under article 108(3) of the TFEU even when they do not meet all of the criteria of article 107(1) of the TFEU.

The GBER also includes an anti-circumvention rule in that it specifies that aid may not be artificially divided into sub-projects so as to escape the notification threshold. According to article 8 of the GBER only aid that has an incentive effect shall be exempt.

On this basis, the Commission adopted Regulation (EC) No. 998/2006 to de minimis aid effective 1 January 2007. It sets out a ceiling below which aid is deemed not to fall within the scope of article 107(1) of the TFEU and is, therefore, exempt from the notification requirement laid down in article 108(3) of the TFEU. This Regulation set the de minimis ceiling at EUR 200,000 per undertaking granted over any period of three fiscal years and thus considerably simplified the granting of small amounts of support. It also expired on 31 December 2013 and will, therefore, be reviewed.

3.4. Recovery duty

The ECJ has held, on several occasions, that the purpose of recovery is to re-establish the situation that existed within the market prior to the granting of the aid. This is necessary to ensure that the level-playing field in the internal market is maintained. In this context, the ECJ has emphasized that the recovery of unlawful and incompatible aid

is not a penalty but the logical consequence of the finding that it is unlawful. It can, therefore, not be regarded as disproportionate to the objectives of the TFEU as regards State aid. According to the ECJ, the:²⁴

[R]e-establishment of the previously existing situation is obtained once the unlawful and incompatible aid is repaid by the recipient who thereby forfeits the advantage which he enjoyed over his competitors in the market, and the situation as it existed prior to the granting of the aid is restored.

In order to eliminate any financial advantages incidental to unlawful aid, interest is to be recovered on the sums unlawfully granted.

In its decision in *Commission v. Germany (Kohlegesetz)* (Case C-70/72),²⁵ the ECJ confirmed, for the first time, that the Commission had the power to order the recovery of unlawful and incompatible State aid. The Court held that the Commission was competent to decide that a Member State must alter or abolish State aid that is incompatible with the common market. It should, therefore, also be entitled to require repayment of this aid. On the basis of this decision and subsequent case law, the Commission informed the Member States in a Communication published in 1983 that it had decided to use all measures at its disposal to ensure that the Member States' obligations under article 88(3) of the EC Treaty (now article 108(3) of the TFEU) are fulfilled, including the requirement for Member States to recover incompatible aid granted unlawfully from the recipient. Currently, Council Regulation 659/1999²⁶ plays an important role in the field of recovery of unlawful aid. It is a procedural regulation that applies to all administrative procedures in the matter of State aid.

The Commission's "recovery decision" imposes a recovery obligation upon the Member State concerned. It requires that the Member State concerned recover a certain amount of aid from a beneficiary or a number of beneficiaries within a given timeframe. As recovery is the ultimate sanction for breaking State aid rules, the non-execution of recovery decisions threatens to undermine the credibility of the Community's State aid policy. For this reason, it is essential to the integrity of the State aid regime that these decisions ordering Member States to recover unlawful State aid (hereinafter referred to as "recovery decisions") be enforced in an effective and immediate manner.

A recovery decision must be addressed to the Member State that granted the unlawful aid and not to the beneficiary. Member States must implement the recovery decision by seeking reimbursement of the unlawful aid from the beneficiary. Under article 14 of Regulation 659/1999, recovery must be effected without delay and in accordance with the national procedures of the Member State concerned, provided that they allow for immediate and effective recovery, taking into account that recovery of aid is limited to 10 years from the day the aid was awarded to the beneficiary.

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of measures with horizontal objectives considered to be in the common interest.
22. Regulation (EC) No. 994/98 authorized the Commission to exempt aid to R&D, but not for innovation. Since, however, innovation has become an EU policy priority in the context of "Innovation Union", one of the flagship initiatives of Europe 2020 and, moreover, many aid measures for innovation are relatively minor and create no significant distortions of competition, Council Regulation (EU) No. 733/2013 of 22 July 2013 amending Regulation (EC) No. 994/98 on the application of Articles 92 and 93 of the Treaty establishing the European Community to certain categories of horizontal State aid, OJ L 204/11 (31 July 2013) amended Regulation (EC) No. 994/98 to include Innovation among the areas covered by the GBER.
23. There are 14 different maximum amounts varying from EUR 2 million for training to EUR 20 million for aid for fundamental research.

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24. IT: ECJ, 4 Apr. 1995, Case C-348/93, *Commission v. Italy*, para. 27.
25. DE: ECJ, 12 July 1973, Case C-70/72, *Commission v. Germany*.
26. Council Regulation (EC) No. 659/1999, of 22 March 1999, laying down detailed rules for the application of Article 93 of the EC, OJ L 83/1 (27 Mar. 1999).

As the Commission is not under a duty to warn potentially interested persons, including the beneficiary of the aid, of the measures that it is taking in respect of unlawful aid before it initiates the administrative procedure, the mere fact that the beneficiary was not aware of the existence of requests for information addressed by the Commission to the national authorities does not have the effect of depriving them of the legal effect vis-à-vis the beneficiary, in particular as regards the interruption of the limitation period.

The beneficiary of State aid cannot, except in exceptional circumstances, have a legitimate expectation that aid was lawful and be relieved of the obligation to repay the aid, unless it has been granted in compliance with the provisions of article 108 of the TFEU.

The Commission also applies *Deggendorf* (Joined Cases T-244/93 and T-486/93)²⁷ in a systematic manner. This case law enables the Commission, if certain conditions have been satisfied, to order Member States to suspend the payment of a new compatible aid to a company until that company has reimbursed previously granted unlawful and incompatible aid that is subject to a recovery decision.

4. R&D&I Promotion and State Aid Policy

The justification for granting State aid to support R&D&I is to encourage firms to undertake more research than they would otherwise take on under normal market conditions. There is ample empirical evidence that shows that the market does not function optimally in relation to research. The Europe 2020 communication makes explicit reference to the role of State aid policy, considering that it can “actively and positively contribute [...] by prompting and supporting initiatives for more innovative, efficient and greener technologies, while facilitating access to public support for investment, risk capital and funding for research and development”.

But as the Commission remarks, the main concern related to R&D&I aid for companies is that rival companies’ dynamic incentives to invest are distorted and possibly reduced. There are three distinct ways in which R&D&I aid can distort competition in product markets:

- when a company receives aid, this generally strengthens its position in the market and reduces the return on investment for other companies. When the reduction is significant enough, it is possible that rivals will cut back on their R&D&I activity. In addition, when the aid results in a soft budget constraint, even the recipient of the aid may have a reduced incentive to innovate (crowding out effect).
- also, it may keep inefficient firms in the market, i.e. the aid granted may lead to overcapacity in declining industries or in sensitive sectors (maintaining an inefficient market structure); and

- furthermore, the aid may enable the beneficiary to engage in exclusionary practises with the result that competitors that did not receive aid will be excluded from the market.²⁸

It is well recognized that the European Union would benefit substantially from an increase in the level of R&D&I because this would lead to higher growth levels in the Union. These R&D&I policies may include a wide range of measures, such as public financing or tax incentives. But not all of these measures fall within the scope of the State aid rules. Aid to R&D&I is only one of the various tools Member States can use, i.e. only one element of R&D&I policies. Moreover, data from the State aid Scoreboard indicates that State aid to R&D&I accounts for only 11% of the overall public expenditure on R&D&I.^{29,30}

As stated in section 3.1., the legislation of the European Union contains a general ban on granting aid from State resources, but this principle expressed in article 107(1) of the TFEU is a rule with exceptions. In particular, aid to R&D can be exempted from the general prohibition against State aid pursuant to the exception in article 107(3) (c) of the TFEU (aid to facilitate the development of certain economic activities) or sometimes under the provisions of article 107(3)(b) of the TFEU (projects of common European interest).

The Commission has a surprisingly wide margin of discretion with regard to exempting State aid under article 107(3) of the TFEU, but this wide margin of discretion is partly circumscribed by two instruments: the Community framework for State aid for research and development and innovation³¹ (R&D&I Framework or Framework),³² which sets out the conditions Member States should respect when granting aid to promote R&D&I and lays down the criteria used by the Commission in assessing the compatibility of State aid for R&D&I, and the GBER,³³ specifically articles 30–37, which exempt a large number of categories of R&D&I from prior notification³⁴ where they meet the conditions set out in the general GBER.

These rules were designed to cover more than just technological R&D&I, therefore, they do not prevent or hinder support in favour of new and emerging forms of R&D&I activities.

28. Commission Staff Working Paper, *supra* n. 4, at p. 6.

29. *Id.*, at p. 2.

30. State aid to R&D&I currently only concerns a limited subset, i.e. less than 1/8 of public R&D&I expenditure. See European Commission, Competition DG, Revision of the State aid rules for research and development and innovation p. 6 (12 Dec. 2012).

31. Commission, Community Framework for State Aid for Research and Development and Innovation, 2006/C 323/01, OJ C 323/1 (30 Dec. 2006).

32. The R&D&I Framework (2006/C 323/01) is the successor of two previous frameworks, i.e. the 1986 and 1996 frameworks.

33. Commission Regulation (EC) No. 800/2008. The GBER allows Member States to grant aid in favour of SMEs, R&D, innovation, regional development, training, employment, risk capital and environmental protection, as well as aid measures promoting entrepreneurship, such as aid for young innovative businesses, newly created small businesses in assisted regions, and female entrepreneurs.

34. Note that the regulation of State aid rests on a system of ex ante authorization, according to which Member States have to notify the Commission of any plan to grant State aid and this aid must not be put into effect before it has been approved by the Commission.

27. DE: ECJ, 13 Sept. 1995, Joined Cases T-244/93 and T-486/93, *TWD Textilwerke Deggendorf GmbH v. Commission of the European Communities*.

In view of the expiry of the R&D&I Framework and the GBER on 31 December 2013, the European Commission has commenced a revision process. On the one hand, a new draft GBER on R&D&I aid was released for public consultation on 8 May 2013 and, after three public consultations in the context of the revision of the GBER, the Commission will probably adopt the final Regulation in the second quarter of 2014.

On the other hand, and as preparatory step for the new rules, on 10 August 2011, the Commission published a mid-term review on the application of the R&D&I Framework,³⁵ thereby delivering on commitment 13 of the Innovation Union Communication.³⁶ As a second step, which took place from 20 December 2011 to 24 February 2012, it sought further feedback from Member States and stakeholders on the application of the R&D&I rules through public consultation. On the basis of replies received to the questionnaire published, the Commission prepared a first draft of a revised R&D&I Framework, which was expected to be published for consultation in the summer of 2013, but was not published until 19 December 2013.³⁷

The European Commission has fixed the criteria applicable to the evaluation process for determining the compatibility of R&D&I measures with State aid rules. These criteria are laid down in the Community framework for State aid for research and development and innovation³⁸ (R&D&I Framework or Framework). This Framework sets out types of R&D&I activities that may be funded through aid together with eligible costs, permitted aid intensities and thresholds that are permissible following the Commission's approval.

The Framework applies to State aid for R&D&I and will be applied in accordance with other Community policies on State aid, other provisions of the founding Treaties and legislation adopted pursuant to those Treaties.

As stated in the Framework, the objective is to enhance economic efficiency through State aid and thereby contribute to sustainable growth and jobs. Therefore, State aid for R&D&I shall be compatible if the aid can be expected to lead to additional R&D&I and if the distortion to competition is not considered to be contrary to the common interest, which the Commission equates, for the purposes of this framework, with economic efficiency. The aim of this Framework is to ensure this objective and, in particular, to make it easier for Member States to better target the aid to the relevant market failures.

The rules on R&D&I contained in this Framework are a flexible package of measures that can be used by Member States to tailor their R&D&I support according to their

national preferences, needs and specificities. On the basis of an economic analysis³⁹ a series of measures are offered to Member States to grant aid and to better target their funds to measures that are, on balance, beneficial to the common interest. The Framework recognizes that without public support R&D&I might be lower than what is socially desirable, but, at the same time, it highlights the possible risks of distortions in competition between firms and in the location of investments across the European Union.

According to general Treaty principles, State aid cannot be approved if the aid measure is discriminatory to an extent not justified by its State aid character. With regard to R&D&I, it should, in particular, be underlined that the Commission will not approve an aid measure that excludes the possibility of exploitation of R&D&I results in other Member States.

The Framework recalls the overall methodology, based on the “balancing test”, the objective of which is to show that R&D&I aid raises economic efficiency without causing excessive distortion of intra-Community trade and competition. The balancing test is based on an economic approach, consisting of three questions assessing the positive and negative effects of the planned measure. In particular, the balancing test specifies that State aid for R&D&I is only acceptable in so far as it:

- (1) addresses a well-defined market failure;
- (2) is well targeted; and
- (3) does not distort competition too much, i.e. it can be, on balance, compatible with the common market.

In light of these positive and negative elements, the Commission balances the effects of the measure and determines whether the resulting distortions adversely affect trading conditions to an extent contrary to the common interest. The analysis in each particular case will be based on an overall assessment of the foreseeable positive and negative impacts of State aid. In doing this, the Commission does not work mechanically, but makes an overall assessment based on the proportionality principle.

The starting point of the balancing test is the identification of a market failure that hampers R&D&I. Once the market failures hampering R&D&I are clearly identified as possible distortions of competition and trade that may be triggered by State aid, the Commission wants proof of the advantages of using State aid instead of other measures.

The next step is to determine whether the aid has an incentive effect, i.e. that it will cause R&D&I activity to increase in terms of size, scope, amount expended and speed with which R&D&I activity is undertaken, while, at the same time, being proportional, which requires that the amount of required aid be linked to the degree of market failure. In conclusion, in all cases, it must be demonstrated that the incentive effect and proportionality test have been satisfied.

35. Available at http://ec.europa.eu/competition/state_aid/legislation/rdi_mid_term_review_en.pdf.

36. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Europe 2020 Flagship Initiative, Innovation Union, SEC(2010)1161, COM(2010)546 final (6 Oct. 2010).

37. The European Commission published this draft for the purpose of obtaining views on it. The deadline to send contributions was 17 February 2014.

38. R&D&I Framework (2006/C 323/01).

39. The R&D&I Framework (2006/C 323/01) represented the first application of the refined economic approach advocated by the 2005 State Aid Plan, COM(2005) 107 final (7 June 2005).

A small number of cases require a detailed assessment if the Commission considers that a more precise analysis of the incentive effect of the aid is necessary to avoid undue distortions.

The Framework, since 29 August 2008, has been complemented by the GBER, which, as stated previously, automatically approves different types of aid measures for these categories of State aid, without a need to notify them to the Commission. In particular, the GBER provides for the registration of aid for R&D&I for all the above measures (excluding aid for Innovation Clusters and Aid for Process and Organizational Innovation in Services) within certain financial limits. Aid provided under the GBER has to be registered with the Commission within 20 days from the date it was granted. Aid above the limits is subject to formal notification for Commission approval under the Framework.

At the beginning, Regulation (EC) No. 994/98 authorized the Commission to exempt aid for R&D, but not for innovation, but since innovation has become an EU policy priority in the context of an “Innovation Union”, one of the Europe 2020 flagship initiatives and, moreover, many aid measures for Innovation are relatively small and create no significant distortions of competition, Council Regulation (EU) No. 733/2013 of 22 July 2013 has amended Regulation (EC) No. 994/98 to include innovation among the areas covered by the GBER.

5. R&D&I Tax Incentives as State Aid

Article 107 of the TFEU states that:

Save as otherwise provided in this Treaty, any aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods shall, in so far as it affects trade between Member States, be incompatible with the common market.

In this context, R&D&I tax incentives, can be labelled as State aid.

State aid in direct tax matters can be perceived based on the traditional theories that support the use of taxation for non-fiscal purposes, seriously questioning their compatibility with EU law.

One instrument that is used to encourage private R&D&I investment is tax measures, in fact, tax incentives for business R&D&I are not a new topic. As early as the 1980s many countries used this instrument. Belgium, France and the Netherlands and, outside Europe, Australia, Canada, Japan and the United States have a longstanding experience with such tax measures. In recent years, however, a number of European countries have (re)introduced or reinforced such schemes. Included in the list of countries that do not use tax incentives for R&D&I at all are countries with high R&D&I intensity such as Finland, Germany and Switzerland, as well as countries with low R&D&I intensity such as Cyprus, Estonia and the Slovak Republic.⁴⁰

40. Nill, *supra* n. 6, at p. 3.

The Commission is aware that econometric studies consistently conclude that reducing R&D&I costs leads to increased business expenditure on R&D&I in the medium to long term and, therefore, that R&D&I tax measures, overall, have an incentive effect on enterprises. In fact, paragraph 5(1)(6) of the R&D&I Framework requires Member States to provide the Commission with evaluation studies on the incentive effects, i.e. the extent to which undertakings have increased their R&D&I expenditure due to the R&D&I tax incentives.

As the Commission has pointed out:⁴¹

An increasing number of Member States use fiscal measures to stimulate Business Expenditure on R&D (hereafter referred to as “R&D fiscal measures”). Depending on their design options R&D fiscal measures may qualify as general measures or as State aid. Article 87.1 of the EC Treaty and the jurisprudence of the Court of Justice set out the conditions under which R&D fiscal measures qualify as State aid (hereafter referred to as “R&D fiscal State aid measure”).

A comprehensive summary of the application of these conditions is provided in the 1998 Commission notice on the application of the State aid rules to measures relating to direct business taxation.⁴²

According to ECJ case law, in order to determine whether a tax measure constitutes State aid the main criterion is that the measure provide an exception to the application of the tax system in the Member State. The common system applicable should thus first be determined to verify whether the measure departs from its general scope. It must then be examined whether the exception favours certain undertakings and if the differentiation within the system may be justified by the nature or general scheme of the tax system. Thus, State aid is only involved if a tax reduction is exceptional with respect to the tax system to which it belongs. According to the notice, measures pursuing general economic policy objectives through a reduction of the tax burden related to certain production costs, such as R&D, are general measures where they are effectively open to all undertakings on an equal access basis and thus do not constitute State aid. As a result, when examining whether a tax measure constitutes State aid or not, the emphasis is on the selectivity or specificity criterion of article 87(1) of the EC Treaty (now article 107(1) of the TFEU). An R&D&I tax measure shall be considered to be selective notably if its potential beneficiaries are restricted, for example, according to their size (to SMEs, for example), location or sector. The fact that some firms or sectors benefit more than others from certain deductions, including accelerated depreciation of certain investments, depends on the intensity with which they avail themselves of such factors. This does not at all mean that such reductions constitute State aid, provided they are effectively open to all undertakings on an equal access basis.

41. Memorandum on the Community Framework on State aid for research and development and innovation (R&D&I) (4 May 2006), available at http://ec.europa.eu/competition/state_aid/reform/archive_docs/rdi_en.pdf.
42. Commission notice on the application of the State aid rules to measures relating to direct business taxation (98/C 384/03), OJ C 384/3 (10 Dec. 1998).

6. Conclusions

This article highlights that the Commission has wide discretion in deciding whether a State aid measure is exempted under article 107(3) of the TFEU but, in practice, the Commission has limited its discretion to approve State aid thorough secondary legislation and soft law, specifically the R&D&I Framework and the GBER.

If the Commission did not use such secondary legislation and soft law, the Commission would be exposed to lobbying by certain Member States based on their specific political situations.⁴³ For this reason, it can be concluded that the use of secondary legislation and soft law enables the European Commission to resist political pressure from Member States and strengthens its position with respect to the Member States.

The use of secondary legislation and soft law may, however, also be considered a tool for directing the aid policies of Member States, i.e. a tool aimed at achieving indirect harmonization or “positive integration”.⁴⁴

This article now turns to the “balancing test”. As stated in section 4., the Framework applies this test in order to determine what kind of State aid for R&D&I is acceptable.

On the one hand, it should be emphasized that this balancing test requires that the aid target a well-defined market failure. With regard to the existence and magnitude of market failures, it should be pointed out that the market failures associated with this kind of aid may relate to the fact that the social return on R&D&I investment is higher than the private return.

On the other hand, the balancing test has been criticized due to the high level of legal uncertainty it entails. This unavoidable effect is due to the fact that the balancing test does not depend on procedural criteria; instead, it applies an economic approach to R&D&I State aid. An economic assessment of State aid is difficult, which makes it impossible to predict in advance the results thereof. This unpredictability stems from the assumptions that the Commission relies on in applying the test rather than the circumstances of the particular State aid at issue.

The balancing test entails a complex study of the impact of State aid, i.e. it requires knowledge of what its impact may be and whether it will achieve its objectives. It is unclear, however, how competition is factored in by Commission or how the overall impact on competition is compared to the overall positive effects of the aid in question, for example. This leads, unavoidably, to legal uncertainty.

It is true that legal uncertainty is an undesirable effect, and that a higher level of legal certainty can be achieved by introducing procedures in the application of the balancing test, however, it is arguable that doing so may reduce the flexibility of the balancing test. It is even questionable

whether or not an economic test is really necessary in the area of State aid.

These considerations suggest that the balancing test should be improved through the use of more precise guidelines and examples of its application by the Commission and by limiting its application to the most complex of cases. For other cases, i.e. those that are not likely to create important distortions in the internal market, appropriate thresholds should be implemented, under which the balancing test would not be required.

It is also arguable, however, that the exact size of the market failure depends on the difference between social and private returns, which, in turn, depends on a large number of other factors, such as market structure, the ability to appropriate IP, the patent system, the importance of the innovation, the R&D&I production function, etc. Nevertheless, it is certainly possible to investigate whether a market failure is likely to exist at all and whether it is significant. In other words, while a qualitative assessment is possible, a quantitative approach will not be very reliable in most cases.⁴⁵

Focussing now on a different topic, it can be stated that, although governmental support for R&D&I does not consist exclusively of forms of State aid subject to the R&D&I Framework (in fact, there are other supporting mechanisms not governed by the R&D&I Framework), European State aid law may represent an obstacle to the progress of R&D&I among Member States. This handicap puts the European Union in a *worse position in relation to its main traditional and emerging competitors* (China, Japan, Korea, the United States and the other BRIC countries), who are not subject to the R&D&I Framework and, therefore, enjoy a wider scope of action.

Thus, although the EU State aid rules need to be stringent enough to prevent serious distortions to competition within the European Union, there is a very real possibility that they represent a threat to the European Union’s external competitiveness.

The Lisbon European Council, in March 2000, wanted the European Union to become “the most competitive and dynamic knowledge-based economy in the world”. In order to realize this objective, however, attention must be paid to the constantly shifting balance between internal competition and external competitiveness because, although the purpose of these rules is to ensure healthy competition within the European Union (thus implying that the rules are internal policies), they may have an impact on the competitive position of EU enterprises inside and outside the European Union.

As stated earlier in this section, the main traditional and emerging competitors are not subject to the R&D&I Framework and, therefore, enjoy a wider scope of action. A 2008 study⁴⁶ revealed that there is no equivalent to the R&D&I

43. Chapter I: Introduction to State aid law and policy, in *European Community Law of State Aid* p. 16 (Kelyn Bacon ed., Oxford University Press 2009).
44. M. Blauburger, *From negative to positive integration? European State Aid control through soft and hard law*, Max Planck Institute for the Study of Societies, Discussion Paper 04/04, 2008.

45. Friederiszick, Röller & Verouden, *supra* n. 19, at p. 637.
46. Impact of the Community Framework for State Aid for Research and Development and Innovation on European Union Competitiveness (Summary of the study done by Technopolis at the request of the Direc-

Framework in the legislation of any of the European Union’s main competitors. There are, in some instances, specific national regulatory frameworks, however, they are less specific and give public decision makers more room for manoeuvre.

As stated in the 2008 study, while the United States does not have a regulatory equivalent to the European Framework for State aid for R&D&I, there are two regulatory systems, one for small firms and another for larger firms. For small enterprises, the Small Business Administration (SBA) has established a single set of rules to be applied by all agencies. For larger firms, the various official agencies have their own rules and procedures. In these situations, it is the Codes of Federal Regulations that provide the general State aid framework and that define the terms and conditions applicable to the various programmes.

With regard to China, the study points out that the R&D&I Framework also has no Chinese counterpart. Since the late 1990s, however, the central government has been attempting to regulate (to protect IP, in particular). On 29 December 2007, President Hu Jintao signed a decree that will bring the Science and Technology (S&T) Advancement Law into force from 1 July 2008. This law should make it possible, inter alia, to improve investment in S&T activities, in particular through the introduction of financial, banking and taxation policies that benefit Chinese firms. The Law also aims to make the distribution and integration of S&T resources more efficient. Finally, it seeks to encourage industry to play a larger role in technological innovation by creating a package of preferential policies to promote Chinese innovations.

In Japan, the law does not lay down any general procedures on State aid. It is up to each funding body to decide on both the content of the programmes and how they will be undertaken. There is, however, a law on the proper implementation of state subsidy budgets, which has been in force since 1958. This law governs the implementation of all state subsidies. Its purpose is to prevent fraud and embezzlement and to ensure that budgets are correctly spent. It is the only law on this subject.

Taking the above into consideration, it can be concluded that as long as there is no equivalent State aid control outside of the European Union, European firms are at a disadvantage with regard to global competition as a result of the R&D&I Framework rules. It is true that European rules on State aid and public procurement are designed to guarantee free and fair competition within the internal market, but it cannot be ignored that such rules have an impact on external competitiveness. In this context, it has been assumed that European competition and global competitiveness cannot always be achieved at the same time, but that the two goals have to be balanced against each other.

torate General of Enterprises, Ministry of Economic Affairs, Industry and Employment) June 2008, available at: <http://archives.dgcis.gouv.fr/2012/www.industrie.gouv.fr/innovation/resume-etude-aides-etat-ang.pdf>.

In order to escape this dilemma, there is evidence⁴⁷ that the Commission has been attempting to promote EU State aid rules beyond EU borders. The Commission has made efforts to transfer EU State aid rules horizontally (to non-EU countries), as well as vertically (at the WTO level), with differing levels of success.

With regard to horizontal transfer, three major groups of countries can be distinguished: the EFTA countries, accession countries and associated countries.

The EFTA countries have signed the European Economic Area Agreement (EEA Agreement).⁴⁸ Articles 61 and 62 of the EEA Agreement are identical to articles 107 and 108 of the TFEU. In addition, Protocol 26 to the Agreement entrusts the EFTA Surveillance Authority “with equivalent powers and similar functions to those of the EC Commission”. The latter protocol also incorporates the more detailed “Procedural Regulation” (Council Regulation (EC) 659/1999)⁴⁹ into the EEA Agreement. Compared to the European Union, the main difference of EFTA State aid control is its limited scope due to the fact that agriculture and fisheries are not covered by the Agreement.

Although Switzerland,⁵⁰ despite being an EFTA Member, has not ratified the EEA Agreement and, therefore, is not subject to the Surveillance Authority’s control, the transfer of EU State aid rules to EFTA countries is almost complete.

Turning to the accession countries, they must adopt EU State aids rules before their accession. This requires negotiations⁵¹ between the Commission and the accession country, the result of which is the adoption by the accession country of national State aid legislation that transposes the EU State aid rules and lays down the procedure for State aid control. But since EU State aid rules cannot be implemented “once and for all”, the candidate country must follow a transition procedure, pursuant to which the candidate country must gradually align its national laws to the EU State aid rules.⁵² The real adjustment of the acces-

47. M. Blauberg & R.U. Krämer, *European Competition vs. Global Competitiveness: Transferring EU rules on State aid and Public Procurement beyond Europe*, CCP Working Paper 10-10, available at <http://ssrn.com/abstract=1656961>.

48. Agreement on the European Economic Area of 17 March 1993, OJ L1 (1993), EU Law IBFD.

49. Regulation No. 659/1999.

50. Switzerland, although a signatory and member of EFTA, failed to ratify the EEA Agreement and is not, therefore, part of the European Economic Area.

51. As Blauberg & Krämer point out, in practice, the *acquis communautaire* is divided for negotiations into different chapters that can be assessed and negotiated separately during accession preparations. State aid control belongs to the competition chapter, which is typically among the last chapters to be finalized. Public procurement issues used to be part of the chapter on free movement of goods but candidate countries now have to discuss these issues in a separate chapter. See Blauberg & Krämer, *supra* n. 48, at p. 14.

52. As Blauberg & Krämer remark, candidate countries had to establish national monitoring authorities which, until accession, were supposed to play a similar role as the Commission normally plays at the European level. Emulating the procedure of European State aid control, the granting of State aid became contingent on notification to and approval by the respective national monitoring authorities. Furthermore, in their assessment of individual aid measures, national authorities were bound to apply the entire State aid *acquis*, including the present and future secondary legislation, frameworks, guidelines and other relevant administrative acts in

sion countries' State aid policies takes place just after accession, when national State aid legislation becomes obsolete and the exclusive competence to control State aid is transferred to the Commission.

Unless all negotiation proceedings are successfully concluded, including questions regarding State aid rules, a candidate country cannot become an EU Member State. For this reason, the Commission's strategy for extending European State aid rules to accession countries has been successful.

Thirdly, associated countries have concluded Stabilization and Association Agreements (SAAs) with the European Commission. The aim of these bilateral agreements is to encourage the adoption of rules in associated countries that might once become accession candidates. Each SAA contains a State aid prohibition similar to that of article 107 of the TFEU and a general obligation to assess competition cases on the basis of criteria arising from the competition rules applicable in the Community. This approach to State aid control is the same as in accession countries: domestic State aid legislation needs to be passed and a national monitoring authority has to be established.

On the other end of the spectrum, vertical upload of EU State aid rules to the multilateral or plurilateral WTO is not always easy because this task requires the consensus of the most powerful EU partner and rival: the US government.

Moreover, the discretionary power of the European Commission to authorize State Aid on the basis of article 107(3) of the TFEU (especially due to the economic approach of the balancing test as mentioned in section 4.) has dramatically reduced the possibility for Member States and business to determine *ex ante* to what extent policy measures of this kind will be allowed. This uncertainty can discourage the business climate and divert it to other regions of the world.

7. Recommendations

The European Commission has to ensure that the new R&D&I Framework will create a competitive playing field within the European Union, but, at the same time, will not put the European Union at a competitive disadvantage relative to other competitor emerging economies that provide State aid to their companies.

It would be appreciated if, first, the Commission were to refrain from enforcing EU State aid rules so strictly in all situations in order to take into consideration the impact of subsidization in competitor economies. Currently, although the potential harm to EU industry caused by state subsidies of third country governments is addressed through the common commercial policy instruments (for example, the WTO dispute settlement process), there is a

risk that EU external competitiveness will be harmed due to third country subsidies.

In addressing State aid control, the "matching clause" is an excellent tool for Member States. The matching clause is contained in paragraph 5(1)(7) of the current R&D&I Framework, which states that:

In order to address actual or potential direct or indirect distortions of international trade, higher intensities than generally permissible under this section may be authorized if — directly or indirectly — competitors located outside the Community have received (in the last three years) or are going to receive, aid of an equivalent intensity for similar projects, programs, research, development or technology. However, where distortions of international trade are likely to occur after more than three years, given the particular nature of the sector in question, the reference period may be extended accordingly.

If at all possible, the Member State concerned will provide the Commission with sufficient information to enable it to assess the situation, in particular regarding the need to take account of the competitive advantage enjoyed by a third-country competitor. If the Commission does not have evidence concerning the granted or proposed aid, it may also base its decision on circumstantial evidence.

The matching clause is a tool aimed at avoiding actual or potential direct or indirect distortions of international trade. The matching clause has no economic rationale (the fact that competitors may have been aided with regard to ineffective projects does not mean that European governments have a reason to undertake such projects themselves) but is aimed at taking into account the competitive advantage enjoyed by a third-country competitor.

For the time being, the matching clause, which allows for greater aid intensity, has not been used by any Member State but it would be an unbeatable tool in the fight against the negative consequences of EU State aid rules on the external competitiveness of the European Union.

Secondly, in order to provide legal certainty to stakeholders, the impact of *State aid rules on Horizon 2020 needs to be clarified*. Stakeholders must have a prior and clear idea of the way in which the activities they intend to undertake are influenced by State aid rules.

Thirdly, governments should review their R&D&I tax incentive schemes because it is MNEs that benefit the most from R&D&I tax incentives since they can use *tax planning to maximize their support for R&D&I activities*.

The OECD highlights that the reason for this is that MNEs typically operate as integrated global businesses and are able (within the limits of the law) to plan their tax affairs to take advantage of differences in tax rates and regimes across tax jurisdictions. Notwithstanding the fact that tax rules are designed to protect the tax base in many countries, MNEs are often able to mostly avoid corporate income tax on R&D&I returns, for example, by using offshore IP holding companies. In addition to this, many states are reluctant to impose controlled foreign company (CFC) rules that would tax on a current basis (rather than

.....
force in the Community, as well as the case law of the Court(s). During the early years after accession, the Commission had to solve some very specific legal questions regarding the period immediately before accession and assess a considerable number of State aid measures. See Blauburger & Krämer, *supra* n. 48, at p. 15.

deferred or exempt basis) royalty income received by offshore holding companies of resident MNEs.⁵³

As a direct consequence of this fact, the OECD remarks that this creates an unlevel playing field that is disadvantageous to purely domestic and young firms.⁵⁴ Further, it should be noted that tax rules sometimes enable MNEs

to shift profits from intellectual assets (i.e. patents). The OECD has already focussed its attention on this matter and has included this issue in its Action Plan on Base Erosion and Profit Shifting,⁵⁵ suggesting that the important aspects of tax schemes should be reviewed in reference to significant R&D&I players. Moreover, the OECD also suggests that well-designed direct support, such as grants and contracts, may be more effective in stimulating R&D&I than previously thought, especially for young firms.⁵⁶

53. *Supporting Investment in Knowledge Capital Growth and Innovation* pp. 37-38 (OECD 2013), available at http://www.oecd-ilibrary.org/industry-and-services/supporting-investment-in-knowledge-capital-growth-and-innovation_9789264193307-en.
54. Directorate for Science, Technology and Industry, *Reform R&D&I tax systems to boost innovation and help young firms* (OECD, 10 Oct. 2013).

55. OECD, *Action Plan on Base Erosion and Profit Shifting* (2013), International Organizations' Documentation IBFD.
56. Id.

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